



**SECURING ISRAEL:
LESSONS LEARNED FROM A NATION UNDER CONSTANT THREAT OF
ATTACK**

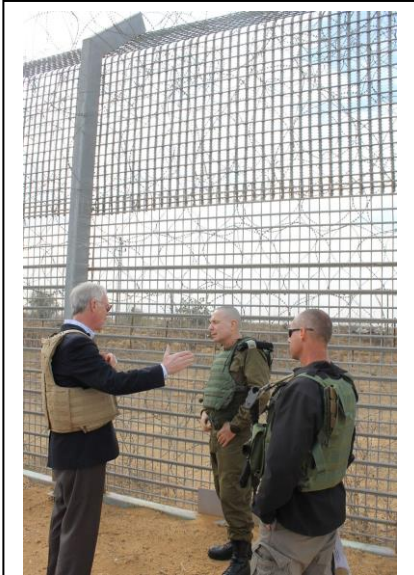
**A Majority Staff Report of the
Committee on Homeland Security and Governmental Affairs
United States Senate
Senator Ron Johnson, Chairman**



February 1, 2017

EXECUTIVE SUMMARY

For decades, the Israelis have lived with a persistent threat of terrorist attacks. Israel is slightly larger in size than the state of New Jersey and surrounded by potential adversaries in the Middle East. Securing its borders and transportation systems is a matter of life and death. On January 8, 2017, the world was once again reminded of the grave security threat facing Israel when a Palestinian terrorist rammed a truck into a group of Israeli soldiers—killing four and wounding 15.



Chairman Johnson at the Nitzana Security Fence

In December, Chairman Ron Johnson traveled to Israel to meet with top Israeli officials, including Prime Minister Benjamin Netanyahu, as well as soldiers and others on the front lines of Israeli security defenses to discuss Israel’s approach to border security, aviation security, and cybersecurity. This staff report presents the findings of that trip.

According to Prime Minister Netanyahu, Israel was one of the first countries to control its borders. It secures its borders through effective fencing and other tactical infrastructure, technology, and manpower. This report highlights the characteristics of the fencing Israel has constructed to secure its nation, including the Nitzana Security Fence along its 143-mile border with Egypt and the West Bank Barrier in East Jerusalem.

Israel has also taken significant steps to protect its air, land, and sea ports, allowing people and goods in while keeping threats out. Israel’s Ben Gurion International Airport has become one of the fastest growing and most secure airports in the world, with controls in place to check all passengers entering the airport through air, rail, and car. This report will highlight these security procedures.

The report also discusses Israel’s approach to cybersecurity. Israel has become a leading pioneer in protecting its cyber assets and is a significant partner with the United States. Israel approaches cybersecurity in a comprehensive, holistic way. Its experiences provide lessons for the United States as our nation continues to examine how best to address cyber threats.

As the 115th Congress begins, Chairman Johnson looks forward to working with Members of the Committee, Secretary Kelly, and the entire Department of Homeland Security to secure our borders, enhance our cyber capabilities, protect our critical infrastructure, and prevent homegrown terrorism. These are serious challenges. But their significance is hard to overstate. Israel has made important progress in all of these areas. The findings presented in this staff report offer potential lessons for the United States to study in improving its homeland security in response to the ever-evolving threats facing our country.



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KEY FINDINGS

The report compares Israeli security experiences to the security policies of the United States. There is much the United States can learn from Israel as Secretary Kelly and the Trump Administration take important steps forward in securing our homeland. The following represent key findings:

- Israel constructed a fence along its border with Egypt in approximately two years.
- Israel spent \$415 million (\$2.9 million per mile) to construct a 143-mile fence on its border with Egypt. The United States has spent \$2.3 billion to construct 654 miles of pedestrian and vehicle barrier fencing along the U.S.-Mexico border, averaging about \$3.5 million spent per mile—representing a 21 percent higher cost per mile than Israel.



Chairman Johnson presenting Prime Minister Netanyahu with a small gift from Wisconsin before a productive meeting

- Israel spends approximately \$8.3 million annually (\$58,000 per mile) to maintain its 143-mile fence bordering Egypt. The United States spends \$50 to \$55 million annually (\$77,000 per mile) maintaining its 650 miles of fencing along the border with Mexico—33 percent more than Israel.
- Israel stations approximately one person for every 1.2 miles of fencing along its border with Egypt. The United States stations approximately 1 person for every 2.2 miles of its border with Mexico.
- The number of illegal crossers on the Israel-Egypt border dropped after the construction of the fence, from more than 16,000 in 2011 to less than 20 in 2016—a 99 percent decrease.



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I. ISRAEL

Chairman Johnson's meetings with top Israeli officials—including an hour-long meeting with Prime Minister Benjamin Netanyahu—covered a wide range of issues, including border security, aviation security, cybersecurity, and recent tensions in the U.S.-Israel relationship.

The United States has long supported Israel—maintaining close ties and security cooperation, including the provision of significant levels of foreign aid and military assistance.¹ Today, the American people remain firm in their longstanding support for Israel as a key ally in the region and globally. According to public opinion polls, around 71 percent of the U.S. population views Israel favorably.²

However, bilateral relations with Israel were strained under the Obama Administration due to a series of adverse U.S. policy decisions in the Middle East. In 2011, President Obama decided to withdraw and not leave a stabilizing military force in Iraq. He failed to take action against the Syrian government after President Bashar Assad crossed President Obama's stated red line by using chemical weapons on his people.³ The Obama Administration was slow to recognize and address the threat posed by ISIS.⁴ The Administration reached a nuclear deal with Iran. That deal provided Iran—a country that funds a wide array of anti-Israel proxies—access to billions in previously frozen assets and failed to prevent Iranian from obtaining nuclear weapon capabilities in the future.⁵ The Obama Administration's decision to depart from tradition in declining to veto an anti-Israel resolution in the United Nations Security Council in December



¹ Jim Zanotti, CONG. RESEARCH SERV., RL33476, ISRAEL: BACKGROUND AND U.S. RELATIONS (2016).

² Lydia Saad, *Americans' Views Toward Israel Remain Firmly Positive*, GALLUP (Feb. 29, 2016), <http://www.gallup.com/poll/189626/americans-views-toward-israel-remain-firmly-positive.aspx>.

³ Ben Wolfgang, *Obama 'Red Line' Erased as Bashar Assad's Chemical Weapons Use Goes Unchecked by U.S. Military*, WASH TIMES (May 17, 2015), <http://www.washingtontimes.com/news/2015/may/17/obama-red-line-erased-as-assad-chemical-weapons-us>.

⁴ Brian Ross *et al.*, *ISIS 2 Years Later: From 'JV Team' to International Killers*, ABC NEWS (June 29, 2016) <http://abcnews.go.com/International/isis-years-jv-team-international-killers/story?id=40214844>.

⁵ Jackie Northam, *Lifting Sanctions Will Release \$100 Billion to Iran. Then What?*, NPR (July 16, 2015), <http://www.npr.org/sections/parallels/2015/07/16/423562391/lifting-sanctions-will-release-100-billion-to-iran-then-what>; Matt Pearce, *Where Are Iran's Billions in Frozen Assets, And How Soon Will It Get Them Back?* LA TIMES (Jan. 20, 2016), <http://www.latimes.com/world/middleeast/la-fg-iran-frozen-assets-20160120-story.html>; *see also The Iran Nuclear Agreement: One Year Later: Hearing Before the S. Comm. on Foreign Relations*, 114th Cong. (2016) (testimony of Mark Dubowitz, Executive Director, Center on Sanctions & Illicit Finance, Foundation for Defense of Democracies).



further strained U.S.-Israeli relations.⁶ Chairman Johnson’s meeting with Prime Minister Netanyahu occurred just days before the anti-Israel resolution vote. The prospect of the United States withholding a veto was of great concern to the Prime Minister.

II. ISRAEL’S APPROACH TO BORDER SECURITY

Prime Minister Netanyahu and other Israeli officials told Chairman Johnson that securing Israel’s borders was a crucial step to protect their homeland. Israel was able to provide this security through the rapid construction of fencing along its most sensitive borders, the use of sophisticated technology, and the dedication of responsive manpower. The country also secures other ports of entry, including pedestrian and commercial crossings within the country, allowing goods and people to transit safely.



Chairman Johnson reviewing the layered approach to the Nitzana Security Fence

a. The Nitzana Security Fence

In Israel, like the United States, different borders present different challenges. Israel has adapted its security infrastructure to meet those various challenges. The Nitzana Security Fence, along Israel’s border with Egypt, has proven that a layered approach to fencing—with associated infrastructure and adequate manpower—can secure a lengthy expanse of land border.



Nitzana Security Fence, Israel

The Nitzana Security Fence, completed in 2013, spans 230 kilometers (approximately 143 miles) and cost \$415 million to construct, or approximately \$2.9 million per mile.⁷ In comparison, although the U.S.-Mexico border is 1,933 miles long, DHS has constructed approximately 654 miles of pedestrian and vehicle barrier fencing at a cost of \$2.3 billion, or approximately \$3.5 million per mile.⁸ Relative to Israel’s security fence at the Egyptian border, the U.S. government has spent 21

⁶ *UN Security Council Demands End to Israeli Settlements, US Abstains*, REUTERS (Dec. 23, 2016), <http://www.cnbc.com/2016/12/23/after-us-abstention-un-security-council-demands-end-to-israel-settlement-building.html>.

⁷ Herb Keinon, *PM Tours South, Heralds Completion of Border Fence*, THE JERUSALEM POST (Jan. 2, 2013), <http://www.jpost.com/Defense/PM-tours-South-heralds-completion-of-border-fence>.

⁸ U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-17-167, *SOUTHWEST BORDER SECURITY ADDITIONAL ACTIONS NEEDED TO BETTER ASSESS FENCING’S CONTRIBUTIONS TO OPERATIONS AND PROVIDE GUIDANCE FOR IDENTIFYING CAPABILITY GAPS* (2017).



percent more money on a per-mile basis.

Fencing costs vary in the United States, with pedestrian fencing costing an average of \$6.5 million per mile and vehicle barrier fencing averaging \$1.8 million per mile. According to agents involved in the construction of fencing across America's southwest border, various factors led to this higher cost in the United States. For example, in the United States, the construction of fencing in some places required the construction of miles of additional access roads to transport the fencing material to rural parts of the border.

Today, the U.S. Border Patrol spends the majority of its funding on maintaining current fencing rather than constructing additional fencing.⁹ Maintenance includes repairing fence cutting, removing vegetation growth, and at times, lifting fencing that has since collapsed or sunk into the ground.¹⁰ The annual cost to maintain the 650 miles of fencing along the U.S.-Mexico border is \$50 to \$55 million, or at least \$77,000 per mile.¹¹ By contrast, the annual amount that Israel spends on maintaining approximately 143 miles of fencing along its border with Egypt is approximately \$8.3 million—two percent of the cost of the fence, or roughly \$58,000 per mile.¹² In other words, the United States spends about 33 percent more on fencing maintenance than Israel.

Israel devised a layered approach when it built its fence. The fenced area begins with a ditch, followed by a pyramid of razor rolled barbed wires.¹³ The fence itself is next, standing more than 16 feet high and made of re-bar, making it hard to cut through.¹⁴ An additional six feet of fencing made of concrete lies underground beneath the fence.¹⁵ Israel has secured its entire border with Egypt, constructing fencing through sand dunes and mountains.¹⁶



Chairman Johnson at the Nitzana Security Fence

Additional infrastructure enhances the security of Israel's Nitzana Security Fence. There is an intrusion-tracking dirt road, a shoulder, a patrol road, another shoulder, and then a ditch.¹⁷

⁹ U.S. CUSTOMS & BORDER PROTECTION, OFFICE OF ADMINISTRATION & OFFICE OF BORDER PATROL, FACILITIES MANAGEMENT & ENGINEERING DIRECTORATE BORDER PATROL FACILITIES & TACTICAL INFRASTRUCTURE PROGRAM MANAGEMENT OFFICE (2015) (on file with Committee staff).

¹⁰ *Id.*

¹¹ Information provided to Majority staff by U.S. Customs & Border Protection (Jan. 4 2017).

¹² Information provided to Majority staff during Israel CODEL (Dec. 2016).

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

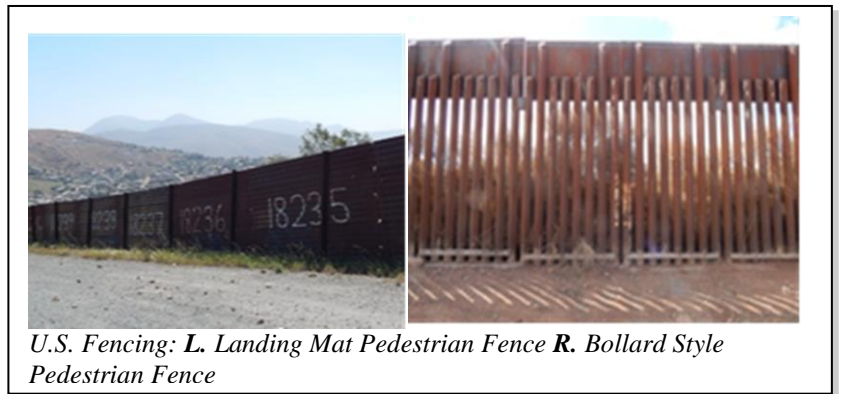
¹⁶ Keinon, *supra* note 7.

¹⁷ Information provided to Majority staff during Israel CODEL (Dec. 2016).



Israeli officials emphasized the importance of the patrol road, which enables guards to quickly respond to illegal crossers trying to defeat the fence barrier.¹⁸

Several different types of fencing defend the United States' southwest border. Legacy fencing, made of Vietnam-era landing mat or wire mesh, covers areas like Naco, Arizona, and Sunland Park, New Mexico.¹⁹ In other places, such as San Diego, California, double-layered bollard-type fencing secures the border. This type of fencing is similar to Israeli fencing.²⁰ Bollard-style fencing is 18- to 30-feet tall with 6- to 8-foot concrete footers beneath the ground.²¹ It is made of vertical slats of difficult to cut plate steel, offset to allow the Border Patrol visibility through the fence to identify approaching threats. Modern fencing such as bollard-style fencing is currently recognized as the most effective type of fencing at the southwest border. However, the United States would be wise to study the characteristics of the Nitzana Security Fence as it begins to upgrade and construct additional fencing.²² Tactical infrastructure is also important to U.S. border security. Border Patrol agents emphasize the importance of patrol roads and border lighting in improving interdictions rates at the border.²³ Both of those features should be included in barrier construction along the southwest border.



Beyond fencing, Israel has observation centers that provide full visibility of the border and multiple battalions that patrol the border—approximately 1 person per 1.2 miles. The result is a response time to intercept a border crosser less than five minutes.²⁴ The U.S. Congress has authorized 21,370, but CBP only employs 19,282 Border Patrol agents to secure the entire border between the ports of entry. This represents a shortage of 1,542 agents.²⁵ At the southwest

¹⁸ *Id.*

¹⁹ U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-17-167, *SOUTHWEST BORDER SECURITY ADDITIONAL ACTIONS NEEDED TO BETTER ASSESS FENCING'S CONTRIBUTIONS TO OPERATIONS AND PROVIDE GUIDANCE FOR IDENTIFYING CAPABILITY GAPS* (2017).

²⁰ *Id.*

²¹ Brady McCombs, *New Border Fence at Nogales to Increase Safety, Security*, ARIZONA DAILY STAR (Apr. 14, 2011), http://tucson.com/news/local/border/new-border-fence-at-nogales-to-increase-safety-security/article_92f84830-178f-50bf-987b-b63343343a90.html.

²² See Paul Bedard, *Israel's Border 'Wall' the Model for Trump, Senate*, THE WASHINGTON EXAMINER (Jan. 4, 2017), <http://www.washingtonexaminer.com/israels-border-wall-the-model-for-trump-senate/article/2610843>.

²³ U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-09-896, *SECURE BORDER INITIATIVE TECHNOLOGY DEPLOYMENT DELAYS PERSIST AND THE IMPACT OF BORDER FENCING HAS NOT BEEN ASSESSED 22-23* (2009).

²⁴ Information provided to Majority staff during Israel CODEL (Dec. 2016).

²⁵ U.S. DEP'T OF HOMELAND SECURITY, *Budget-in-Brief Fiscal Year 2016*, https://www.dhs.gov/sites/default/files/publications/FY_2016_DHS_Budget_in_Brief.pdf.



border, 17,026 agents patrol the 1,933 miles of border. However, at any given time, there are only about 900 border patrol agents assigned to patrol duties along the southwest border. The actual coverage is approximately 1 agent per 2.2 miles.²⁶

In the United States response times vary from under a minute along fenced areas in dense areas to more than 20 minutes in rural parts of the fenced border.²⁷ Border Patrol agents point out that while Israeli officers are evenly staggered across their borders, in the United States agents are not equally dispersed, resulting in the disparity in response times. The Border Patrol Union also highlighted that only six percent of the Border Patrol resources are patrolling the border at any given time. The Union calls this “kingdom building” and has encouraged Congress to call for more agents in the field rather than in supervisory roles.²⁸



Chairman Johnson and Examining the West Bank Barrier with Col. Dany Tirza

Israel’s layered approach along the Nitzana Security Fence has produced impressive results. In 2010, Israel saw 13,807 illegal entries at its border with Egypt, largely from sub-Saharan Africans looking for work.²⁹ Economic incentives are a key factor causing people to illegally cross Israel’s western border. According to Israeli officials, an African can earn a year’s worth of salary in his home country by working two days in Israel.³⁰ Israel constructed its security fence to halt this increasingly uncontrolled flow of migrants from Africa. The construction began in 2010, the majority of which took two years to complete.³¹ During this time, 16,514 illegal entries were recorded in 2011 and 10,042 were recorded in 2012.³² Illegal entries fell substantially after the completion of the security fence—to 43 in 2013 and 12 in 2014.³³

²⁶ Information based on Border Patrol Schedule 41 on Monday, Jan. 9, 2017.

²⁷ U.S. DEPT. OF HOMELAND SECURITY, U.S. CUSTOMS & BORDER PROTECTION, *Holding the Line in the 21st Century: A Strategic Evolution, A Risk-Based Strategy, Measuring Security*, available at https://www.cbp.gov/sites/default/files/documents/Holding%20the%20Line_TRILOGY.pdf.

²⁸ *Polygraph Con-Job*, Local 2544, TUCSON, ARIZONA, NATIONAL BORDER PATROL COUNCIL (June 14, 2016), <http://www.local2544.org/polygraph-con-job>; see also SECURING THE SOUTHWEST BORDER: PERSPECTIVES FROM BEYOND THE BELTWAY: HEARING BEFORE THE S. COMM. ON HOMELAND SEC. & GOVERNMENTAL AFFAIRS, 114th Cong. (2015) (statement of Chris Cabrera, Border Patrol Agent, Rio Grande Valley Sector, U.S. Customs & Border Protection); see also DEFERRED ACTION ON IMMIGRATION: IMPLICATIONS & UNANSWERED QUESTIONS: HEARING BEFORE THE S. COMM. ON HOMELAND SEC. & GOVERNMENTAL AFFAIRS, 114th Cong. (2015) (statement of Shawn Moran, Vice President, National Border Patrol Council) (highlighting that the ratio of supervisor to agent within the U.S. Border Patrol is 4 to 1).

²⁹ Information provided to Majority staff during Israel CODEL (Dec. 2016).

³⁰ *Id.*

³¹ Joel Greenberg, *On Israel’s Uneasy Border with Egypt, A Fence Rises*, WASH POST (Dec. 2, 2011), https://www.washingtonpost.com/world/middle_east/on-israels-uneasy-border-with-egypt-a-fence-rises/2011/11/28/gIQAzt19JO_story.html?utm_term=.584c29b8a7c9.

³² Information provided to Senate Majority staff during Israel CODEL (Dec. 2016).



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In 2015, the number of people seeking to enter Israel at its border with Egypt began to increase, with 213 illegal entries recorded that year.³⁴ According to Israeli officials, the number of illegal entries rose because crossers began to use ladders at a section of the border to defeat the fence.³⁵ To address this new tactic, Israel increased the height of the fence, rendering the ladders ineffective. In 2016, illegal crossers dropped to 11.³⁶

Building upon the successes of the Nitzana Security Fence, Israel began the construction of a fence along its border with Jordan in January 2016.³⁷ This fence is expected to be completed shortly. It will share many of the same characteristics as the Nitzana Security Fence.

The effectiveness of the security fence has forced adversaries to seek other means of entering the country. In particular, tunneling poses challenges to effective security fencing in Israel.³⁸ As Prime Minister Netanyahu told Chairman Johnson during their meeting, “There are three problems with fencing: (1) tunnels; (2) tunnels; (3) tunnels.” The United States is familiar with this problem. Since 1990, Immigration and Customs Enforcement (ICE) and the U.S. Border Patrol have discovered more than 150 tunnels along the U.S.-Mexico border—more than 50 of which have been located in the San Diego sector.³⁹ Israel and the United States are committed partners in attempting to develop technology to detect this tunneling, but it remains a difficult technological challenge.

“There are three problems with fencing: (1) tunnels; (2) tunnels; (3) tunnels.” –Prime Minister Netanyahu, December 17, 2016.

b. The West Bank Barrier

In the north, Israel has constructed the West Bank Barrier, which generally tracks the border between the West Bank and Green Line Israel.⁴⁰ The barrier was constructed during the

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ Raoul Wootliff, *Israel Starts Massive Fence on Southern Border with Jordan*, THE TIMES OF ISRAEL (Jan. 20, 2016), <http://www.timesofisrael.com/israel-starts-massive-fence-on-southern-border-with-jordan>.

³⁸ James Verini, *Gaza’s Tunnels, Now Used to Attack Israel, Began as Economic Lifelines*, NATIONAL GEOGRAPHIC (July 21, 2014), <http://news.nationalgeographic.com/news/2014/07/140721-gaza-strip-tunnels-israel-hamas-palestinians>.

³⁹ *Sophisticated U.S.-Mexico ‘Drug Tunnels’ Discovered*, BBC (July 13, 2012), <http://www.bbc.com/news/world-latin-america-18823975>; see also Candice Nguyen, *Go Inside Secret Border Tunnel Near San Diego*, NBC (Apr. 30, 2015), <http://www.nbcsandiego.com/news/local/San-Diego-Border-Tunnel-Go-Inside-Video-301822991.html> (reporting Border Patrol discovered a sophisticated tunnel with a rail-cart system near the San Ysidro port of entry); Majority Staff observations during bipartisan, bicameral STAFFDEL to the San Diego Sector (Aug. 2015) (San Diego has the best terrain for tunneling of all the southwest border sectors and the majority of these tunnels are 80 feet deep).

⁴⁰ Green Line Israel is the demarcation line set out in the 1949 Armistice Agreements between Israel and Egypt, Jordan, Lebanon and Syria after the 1948 Arab-Israeli war.



Second Intifada that began in September 2000.⁴¹ The Israeli Ministry of Foreign Affairs has found a “clear correlation between the construction of the fence and a drop in the number of terrorist attacks from those areas adjacent to the parts of the fence that have been completed.”⁴²

Similar to the Nitzana Security Fence along the Israeli-Egyptian border, the separation barrier is designed with a layered approach.⁴³ The first layer consists of red signs alerting would-be crossers in multiple languages that they should not attempt to cross the fence.⁴⁴ The second layer is the fence. The fence in most areas is only 10 feet high and 9 inches deep into the ground.⁴⁵ However, approximately five percent of the fence is a concrete wall, significantly taller than the 10 foot fence along most of the border.⁴⁶ The third layer of defense to the West Bank Barrier is a dirt path, which is cleaned twice a day to check for footprints.⁴⁷ The fourth layer is a patrol road. The fifth layer is a second fence. Cost estimates of this barrier vary.

The barrier itself is actually located 325 to 650 feet into the West Bank.⁴⁸ According to Israeli officials, the location is necessary to give Israelis time to interdict would-be terrorists who are able to defeat the fence. If the fence was actually located on Green Line Israel and a terrorist was able to defeat the barrier, it would be too late to protect those living along the border. Israeli officials also emphasized that the barrier is not seen by Israel as a permanent wall. Instead, Israel hopes to remove this barrier if and when the Israelis and Palestinians achieve peace.



Chairman Johnson at the West Bank, examining a portion of the concrete barrier

⁴¹ *West Bank Barrier*, UNITED NATIONS OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS (OCHA), <http://www.ochaopt.org/theme/west-bank-barrier> (last visited Jan. 4, 2017); see also *Victims of Palestinian Violence and Terrorism Since September 2000*, ISRAELI MINISTRY OF FOREIGN AFFAIRS, <http://mfa.gov.il/MFA/ForeignPolicy/Terrorism/Palestinian/Pages/Victims%20of%20Palestinian%20Violence%20and%20Terrorism%20sinc.aspx> (last visited Jan. 4, 2017).

⁴² ISRAELI MINISTRY OF FOREIGN AFFAIRS, *Saving Lives: Israel's Anti-Terrorism Fence - Answers to Questions*, (Jan. 1, 2004), <http://www.mfa.gov.il/mfa/foreignpolicy/terrorism/palestinian/pages/saving%20lives-%20israel-s%20anti-terrorist%20fence%20-%20answ.aspx#1>.

⁴³ Mitchell Bard, *West Bank Security Fence: Background & Overview*, JEWISH VIRTUAL LIBRARY, <http://www.jewishvirtuallibrary.org/jsourc/Peace/fence.html> (last updated Feb. 2016).

⁴⁴ Information provided to Majority staff during Israel CODEL (Dec. 2016).

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.*



c. Israel's Border Crossings and Ports of Entry

Unlike the Nitzana Security Fence along the Israeli-Egyptian border, the West Bank Barrier has gates that allow for pedestrian crossings. In fact, Palestinians leave the West Bank and enter Israel each day to work. Every morning Palestinians who live in the West Bank but work in Jerusalem must go through a pedestrian crossing where they are screened before leaving the West Bank. This model of providing a legal entry for those seeking to work allows Israel to focus its security efforts on those with nefarious intentions.

At another crossing point, the Kerem Shalom crossing at the Gaza Strip presents unique security challenges. Gaza is home to approximately 1.8 million Palestinians.⁴⁹ Hamas, a State Department-designated terrorist organization, currently controls Gaza.⁵⁰ For years, Hamas has posed a significant security threat to Israel, including shooting rockets at Israelis. But Israel recognizes that the majority of people living in Gaza are not terrorists and Israel views its mission of supplying goods into Gaza as a humanitarian one.



Pedestrian Crossing at Jerusalem and the West Bank



Chairman Johnson touring the Kerem Shalom Crossing at Gaza

Goods enter Gaza at the Kerem Shalom crossing. Each year, about 180,000 trucks enter in and out of Gaza through this crossing, with approximately 800 truckloads entering and 50 truckloads leaving Gaza each day.⁵¹ Because Egypt rarely opens its gates at its border with Gaza, the Kerem Shalom crossing point in Israel is often the only legitimate way that goods can enter Gaza.⁵² The people living in Gaza receive nearly all goods required for daily life through this crossing. They mostly export scrap metal blocks taken from old refrigerators and other appliances.⁵³

⁴⁹ Genevieve Belmaker, *Kerem Shalom: Crossing into Hostile Territory*, EPOCH TIMES (June 11, 2016), <http://www.theepochtimes.com/n3/2085450-kerem-shalom-crossing-into-hostile-territory>; see also *Crossing Points: Rules of Conduct at the Various Border Crossing Points*, ISRAEL MINISTRY OF FOREIGN AFFAIRS, http://mfa.gov.il/MFA/ConsularServices/Pages/Crossing_points.aspx (last visited Jan. 5, 2017).

⁵⁰ *Israel, The West Bank and Gaza Travel Warning*, U.S. STATE DEP'T (Aug. 23, 2016), <https://travel.state.gov/content/passports/en/alertswarnings/israel-travel-warning.html>.

⁵¹ Information provided to Majority staff during Israel CODEL (Dec. 2016).

⁵² Belmaker, *supra* note 49.

⁵³ *Id.*



The Kerem Shalom crossing operates one shift per day during daylight hours. The crossing is staffed by approximately 70 workers and nine K-9 units.⁵⁴ Israelis and Palestinians are never in contact with one another at the crossing. Instead, an Israeli truck driver will enter the crossing and unload the goods out of the truck into a secure area. Operators then inspect the goods for so-called “dual use” goods—items that have both a legitimate use and an illegitimate use.⁵⁵ Because of their potential illegitimate use, they are prohibited from entering Gaza.⁵⁶ After the inspection is complete, Palestinians enter the space and load their trucks for transit into Gaza.



Trucks from Gaza entering Israel to be loaded by Palestinians after Israel has inspected the goods

People in Gaza have responded to Israeli restrictions by building a number of tunnels in and out of Gaza to smuggle in prohibited items.⁵⁷ Israelis are aware of this tunneling and can identify the location of a tunnel beginning in Gaza from the emerging pile of sand. These tunnels have been used to smuggle in a variety of goods, from potato chips to coils of re-bar. They have also used the tunnels to smuggle in animals, such as a lion for exhibition at the Gaza zoo.⁵⁸ Approximately 90 percent of these tunnels were recently destroyed. Egypt bulldozed the area near its border with Gaza where tunnels terminated and then flooded the tunnels with water channeled in from the Mediterranean Sea.⁵⁹ Today, however, Israel is more concerned with Hamas offensive tunneling than the smuggling tunnels by the Palestinians.

III. ISRAEL’S APPROACH TO AVIATION SECURITY

Aviation security is another priority of Israel’s homeland security. Israel’s airports have been attacked in the past. Following these attacks, Israel committed to three goals for aviation security: (1) prevent attacks to the aircraft; (2) prevent attacks on airport grounds; and (3) prevent attacks inside Israel by arriving passengers.

Recent events in the United States demonstrate that we should study the Israeli experience. For example, in 1972, a Japanese militant landed in Israel and retrieved luggage from baggage claim where he and others had packed automatic weapons inside their suitcases.⁶⁰

⁵⁴ Information provided to Majority staff during Israel CODEL (Dec. 2016).

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ Verini, *supra* note 38.

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ Tom Segev, *How the Terrorist Who Attacked Israel’s Main Airport Escaped the Death Penalty*, HAARETZ (Jun. 15, 2012), <http://www.haaretz.com/israel-news/how-the-terrorist-who-attacked-israel-s-main-airport-escaped-the-death-penalty.premium-1.436586>.



The attackers immediately began firing on passengers, killing 26 people and wounding 72 more.⁶¹ This attack is similar to the January 6, 2017 attack at the Fort Lauderdale Airport. Like

Israel's experience, a gunman claimed his luggage in the baggage area, retrieved a firearm, and began randomly shooting into the crowd, killing five people and injuring six others.⁶²

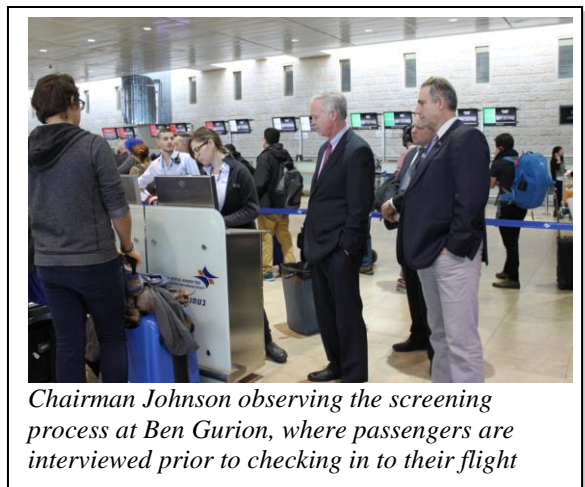


Chairman Johnson touring the Ben Gurion International Airport

Technology at the Ben Gurion Airport—including electronic fences and gates in and out of the airport, laser sensors, radars, and access controls for windows and doors—aids in Ben Gurion's ability to move passengers and goods. In 2016, 16.2 million passengers transited the airport, and 17.8 million passengers are expected to do so in 2017.⁶³ Ben Gurion is not a connection hub. It serves as the end of the line to 120 operating airlines traveling to

and from 160 destinations.⁶⁴ The airport's annual security budget of \$851 million is funded through passenger and airport service fees (56 percent) and from commercial enterprises such as parking and duty free purchases (44 percent), with a heavy reliance on duty-free purchases.⁶⁵

Ben Gurion regularly conducts security drills to ensure continuous attention to security. They also offer student internships to encourage people to enter the security field.⁶⁶ Each airport employee is required to take responsibility for his or her security tasks. For example, individual security officers who clear checked bags that are loaded onto aircrafts must enter their employee number into a computer system to ensure accountability.⁶⁷ Each employee is also required to meet ongoing training and performance standards to carry out their responsibilities.⁶⁸



Chairman Johnson observing the screening process at Ben Gurion, where passengers are interviewed prior to checking in to their flight

⁶¹ *Id.*

⁶² Mark Berman & Tal Abbady, *Fort Lauderdale Shooting Suspect Appears in Court, Ordered Held Without Bond*, WASH POST (Jan. 9, 2017), https://www.washingtonpost.com/news/post-nation/wp/2017/01/09/fort-lauderdale-shooting-suspect-to-make-first-court-appearance-on-federal-charges/?utm_term=.6324b8ead00c.

⁶³ Oren Liebermann, *Ben Gurion: The World's Most Secure Airport?*, CNN (May 28, 2016), <http://www.cnn.com/2016/05/28/travel/ben-gurion-worlds-safest-airport-tel-aviv>.

⁶⁴ Information provided to Majority staff during Israel CODEL (Dec. 2016).

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.*

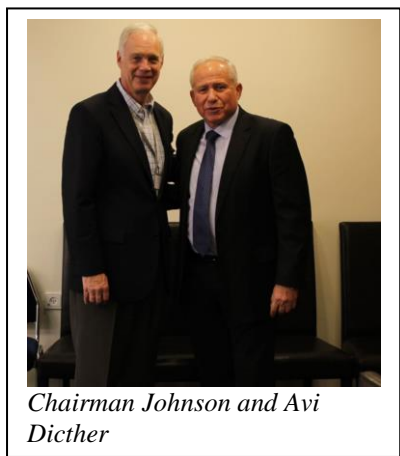


Israel also partners with other countries, including the United States, to ensure its airport is following the latest and most effective security protocols. Israeli officials met with former Transportation Security Administration Administrator Peter Neffenger shortly before Chairman Johnson’s visit. While Israeli officials declined to rate the overall effectiveness of U.S. aviation security, Israeli officials highlighted the Dallas/Forth Worth International Airport as a U.S. airport that comes close to the security mechanisms at Ben Gurion.

One security concern that Israeli officials highlighted is the insider threat posed by employees with access to secure areas. At Ben Gurion there are 20,000 badge holders, each of whom receives a background check and interview before obtaining the badge.⁶⁹ In the United States, there are a total of 1.72 million Secured Identification Display Area (SIDA) badge holders across more than 5,000 airports.⁷⁰ These badge holders are also subject to FBI background checks and, when appropriate, interviews.⁷¹ After several incidents of not reporting lost and missing SIDA badges in the United States, the Committee helped develop and advance legislation requiring airports to track all issued SIDA badges and immediately cancel any lost or stolen badges.⁷² This legislation was signed into law in July 2016.⁷³

IV. ISRAEL’S APPROACH CYBERSECURITY

According to Avi Dichter, Chairman of the Foreign Affairs and Defense Committee—a permanent Knesset committee that oversees Israeli foreign and defense issues—Israel’s ultimate goal is to build a sophisticated wall to block cyber-attacks against its cyber assets, with a particular focus on critical infrastructure.



In 2011, the Prime Minister challenged Dr. Eviatar Matania, the Director General of Israel’s National Cyber Directorate (INCD) which includes the Israel National Cyber Bureau (INCB) and National Cyber Security Agency (NCSA), to develop a comprehensive cyber strategy for Israel. Dr. Matania established the INCD with a direct reporting line to the Prime Minister and a mission to address the cyber threat in a comprehensive way.

In comparison, in the United States cyber threats are examined in a more diffuse fashion, with the White House, DHS, and the National Security Agency (NSA) each playing important roles. In July 2016, the White House issued an Executive

⁶⁹ *Id.*

⁷⁰ Information provided to Majority staff by the Transportation Security Administration (Jan. 3, 2017).

⁷¹ U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-15-704T, AVIATION SECURITY: TSA HAS TAKEN STEPS TO IMPROVE VETTING OF AIRPORT WORKERS 2 (2015).

⁷² H.R. 636. 114th Cong. (2016) (enacted).

⁷³ *Id.*



Order distributing cyber authorities among DHS, the Department of Justice (DOJ), and the Intelligence Community.⁷⁴ Later, in December 2016, the White House Commission on Enhancing National Cybersecurity called for a model similar to that of Israel's, with one agency solely focused on cybersecurity.⁷⁵ The outgoing leadership at DHS has called on that one agency to be the National Protection and Programs Directorate, a component within DHS, accompanied by a name change to the agency itself.⁷⁶

In Israel, the INCD employees three distinct strategies: robustness, resilience, and retaliation. Israel promotes information sharing among the public and private sector similar to that of the United States. Israel also works on capacity building, searching for breakthrough technologies to defend its networks. While Dr. Matania said bad actors currently have an edge on attacking networks, the balance is shifting and defenders are beginning to catch up. Fortunately, private sector companies worldwide recognize the importance of cybersecurity practices and there has been significant investment in cyber defenses.

Israel believes that continued collaboration and research and development with the United States are important ways to continue addressing the threat. Specifically, Dr. Matania suggested finding opportunities to bring United States and Israeli cyber researchers together. Congress took an important first step towards this goal in December by passing the United States-Israel Advanced Research Partnership Act of 2016. Chairman Johnson encouraged leadership to pass this bill by unanimous consent before the end of the 114th Congress. This legislation will enhance U.S.-Israel cyber collaboration in the future by adding "cybersecurity" to a list of cooperative research programs between Israel and the United States.



Chairman Johnson and Dr. Eviatar Matania

V. CONCLUSION

In Israel, homeland security is a matter of life and death. To address this, it has implemented robust and comprehensive security measures. It secures its borders with effective

⁷⁴ Presidential Memoranda, The White House, Office of the Press Secretary, *Presidential Policy Directive/PPD-41: United States Cyber Incident Coordination* (July 26, 2016), <https://www.whitehouse.gov/the-press-office/2016/07/26/presidential-policy-directive-united-states-cyber-incident>; Presidential Memoranda, The White House, Office of the Press Secretary, *Annex to Presidential Policy Directive/PPD-41: Federal Government Coordination Architecture for Significant Cyber Incidents* (July 26, 2016), <https://www.whitehouse.gov/the-press-office/2016/07/26/annex-presidential-policy-directive-united-states-cyber-incident>.

⁷⁵ *Report on Securing and Growing the Digital Economy*, White House Commission on Enhancing National Cybersecurity (Dec. 1, 2016), https://www.whitehouse.gov/sites/default/files/docs/cybersecurity_report.pdf.

⁷⁶ *National Protection and Programs Directorate*, Dep't of Homeland Sec., <https://www.dhs.gov/national-protection-and-programs-directorate> (last visited Jan. 5, 2017).



fencing, tactical infrastructure, technology, and manpower; it secures its airports through sophisticated technology and alertness; and it secures its networks and critical infrastructure through a dedicated agency with a sole focus on this threat. Israel demonstrates that a country can increase security when it has the political will to do so.

Israel's swift and effective border security measures provide lessons for the United States and other countries seeking to protect their citizens from the threat of terrorism and illegal migration. When Israel faced an uncontrolled migration flow entering through its border with Egypt, it quickly constructed a fence that put an immediate end to this migration. When suicide bombers crossed a porous boundary line between Green Line Israel and the West Bank with the intent to inflict mass casualties on Israeli citizens, Israel promptly built a barrier to inhibit terrorists' access to the country.

Israeli fences have proven more effective than the fencing in the United States and, in regards to the fencing along its border with Egypt, was constructed at a significantly cheaper cost. The characteristics of Israel's fences offer important lessons for the United States as it seeks to construct additional fencing along the southwest border. Israel's patrol roads, observation towers, and manpower deployment are important features that allow for rapid response times in reaction to attempted breaches of the fence.

This multi-layered approach to security is not only evident at Israel's border, but was fully on display at the Ben Gurion airport and was often credited by officials on how Israel protects its critical infrastructure and defends its cyber assets. The United States also employs a layered approach to security. Indeed, as Secretary Kelly recently testified to the Committee, "a physical barrier [at the border] in and of itself will not do the job. It has to be a layered defense."

Israel and the United States are important allies, in the ongoing fight against terrorism. As the threat of ISIS looms over both nations, it is imperative that both countries remain resolute in enforcing strong security protocols. As we strive to improve our homeland security, it is clear that much can be learned from Israel's approach to securing its borders, aviation, and cyber assets.



Chairman Johnson and General Eran Ophir, after touring the fencing in Israel

